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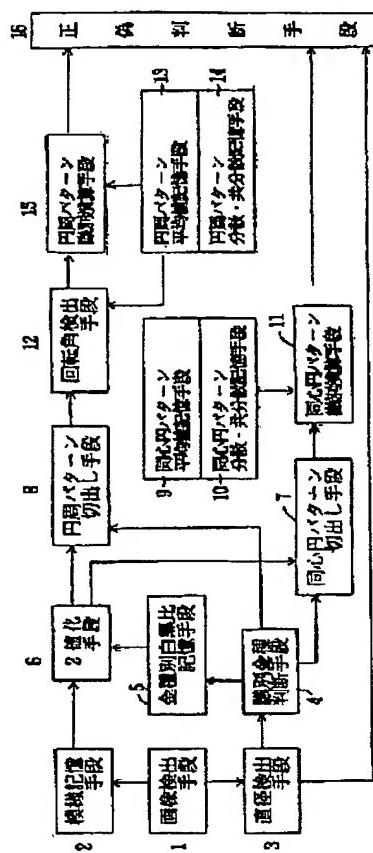
APPLICATION DATE : 21-05-96
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APPLICANT : FUJI ELECTRIC CO LTD;

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TITLE : IMAGE PATTERN IDENTIFYING DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To accelerate identification by decreasing the quantity of arithmetic by compressing pattern information quantity without lowering accuracy for identifying the pattern of image of a coin.

SOLUTION: The gradation image of the coin picked up by an image detecting means 1 and A/D converted is stored in a means 2, on the other hand, the diameter of the coin is detected from this image by a means 3, and its denomination is judged by a means 4. A binarizing means 6 extracts a binarized image reducing the influence of dirt or rust on the surface of the coin from the gradation image corresponding to the optimum threshold value of denomination previously stored in a back-and-white ratio storage means 5 by denominations. A means 7 segments a concentric circular pattern regardless of the rotation of the coin from the binarized image and a means 8 segments the circumferential pattern of serial data related to the rotation respectively. A means 11 finds and identifies the degree of similarity (such as a correlative coefficient or a Mahalanobis distance) while using the average value or distribution/ covariance of centrifugal pattern of a reference coin previously stored in means 9 and 10 and means 12 and 15 find the degree of similarity while using the average value or distribution/covariance of circumferential pattern similarly stored in means 13 and 14 so that the rotating angle of the coin can be corrected and identified.

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